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(21) International Application Number: PCT/US99/13750 (22) International Filing Date: 17 June 1999 (17.06.99) (30) Priority Data: 60/090,004 19 June 1998 (19.06.98) US (71) Applicant (for all designated States except US): ROSETTA INPHARMATICS, INC. [US/US]; 12040 115th Avenue, N.E., Kirkland, WA 98034 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): FRIEND, Stephen, H. [US/US]; 2653 Cascade Avenue S., Seattle, WA 98144 (US). STOUGHTON, Roland [US/US]; 425 West Spruce Street, San Diego, CA 92103 (US). (74) Agents: ANTLER, Adriane, M. et al.; Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: METHODS OF MONITORING DISEASE STATES AND THERAPIES USING GENE EXPRESSION PROFILES		
(57) Abstract The present invention provides methods for monitoring disease states in a subject, as well as methods for monitoring the levels of effect of therapies upon a subject having one or more disease states. The methods involve: (i) measuring abundances of cellular constituents in a cell from a subject so that a diagnostic profile is obtained, (ii) measuring abundances of cellular constituents in a cell of one or more analogous subjects so that perturbation response profiles are obtained which correlate to a particular disease or therapy, and (iii) determining the interpolated perturbation response profile or profiles which best fit the diagnostic profile according to some objective measure. In other aspects, the invention also provides a computer system capable of performing the methods of the invention, data bases comprising perturbation response profiles for one or more diseases and/or therapies, and kits for determining levels of disease states and/or therapeutic effects according to the methods of the invention.		